Master Thesis Program
Stockholm 2026

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ASSA ABLOY is the global leader in access solutions and provides the latest technologies to give access to physical and virtual spaces for millions of people every day. Joining ASSA ABLOY means being part of a fast-moving and highly innovative company with diverse opportunities in more than 70 countries worldwide.

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Master Thesis Program

◎ Stockholm

Each year, we welcome Master Thesis students from diverse engineering disciplines – mechanical, electronics, computer science, industrial engineering and finance.

Over six months, you'll dive into real-world challenges, supported by experienced managers and our vibrant student community, former thesis students who now work with us.

Social activities after works will help you build your network and feel at home from day one.

Ready to open doors to your future?

Applications for our Master Thesis Program spring 2026 are open **Oct 22 - Nov 24**

We are The ASSA ABLOY Group

Our people have made us the global leader in access solutions. In return, we open doors for them wherever they go.

With nearly 65,000 colleagues in more than 70 countries, we help billions of people experience a more open world. Our innovations make all sorts of spaces – physical and virtual – safer, more secure, and easier to access.

We value results – not titles or backgrounds. We empower our people to build their careers around their aspirations and our ambitions, supporting them with feedback, training, and development opportunities. We welcome diverse perspectives and experiences and are committed to building inclusive teams.

This years topics:

Nr 1. Managing intellectual property (IP) when retrofitting legacy manual access product

Nr 2. Framework development for product-level circularity assessment

Nr 3. Sustainable Software Based Access Solutions

Nr 4. Increased efficiency in hospitals by smart access solutions

Nr 5. Evaluating Multi-Agentic AI Systems in Practical Applications

Nr 6. AI Scalability & Governance

Nr 7. Leading versus lagging indicators in SaaS

Nr 8. Product Usage Metrics

Nr 9. AI for Digital Trust

Managing intellectual property (IP) when retrofitting legacy manual access product

This thesis explores how intellectual property (IP) is impacted when upgrading the installed base of legacy manual access systems from analog to digital, especially within a larger digital ecosystem. Using an ASSA ABLOY product line as a case study, the research will explore how ecosystem participation — involving technology partners, platform providers, and interoperability standards — influences IP risks, opportunities, and strategic decision-making.

Suggested Areas of Exploration:
- What type of IP is generated or impacted when upgrading analog access systems with digital technologies in an ecosystem context?
- How does participation in a digital ecosystem (e.g., integration with third-party platforms, standards, and data-sharing models) affect IP strategy and protection?
- What are the key IP risks associated with ecosystem collaboration, and how can they be mitigated during retrofit projects?

Expected Student Capabilities and Prior Knowledge:
- Understanding of digital ecosystems, including their characteristics, advantages, and limitations.
- Knowledge of innovation strategies, and how businesses strategically use them.
- Familiarity with the role of intellectual property protection in gaining competitive advantages.
- Analytical and critical thinking skills, including the ability to dissect complex problems, assess information objectively, and propose solutions to identified challenges.

Framework development for product-level circularity assessment

This master thesis aims to design a circularity assessment tool that is both academically rigorous and practically valuable for ASSA ABLOY's sustainability initiatives. The successful candidate will contribute to the development of a framework that bridges academic research with practical application, tailored to the complex hardware systems we produce, such as locks, access solutions, and door components.

Problem Statement
- Lack of product-level assessment frameworks tailored to complex hardware systems like locks, access solutions, and door components.
- Need for a tool that bridges academic rigor with practical relevance.

Research Questions
- How can circularity be measured in a way that is scientifically robust and operationally feasible?
- What are the environmental benefits of improving circularity in ASSA ABLOY's products?

Objectives
- Develop a circularity assessment framework tailored to ASSA ABLOY's method of managing environmental data to ensure implementation.
- Develop a digital prototype/concept that enables product development teams to evaluate the circularity performance of a product.
- Contribute to ASSA ABLOY's sustainability roadmap and academic literature.

Sustainable Software Based Access Solutions

As global sustainability goals become more ambitious, companies like ASSA ABLOY are placing greater emphasis on resource efficiency and reduced energy consumption in product development. However, current tools lack the necessary guidance and industrial relevance to support effective decision-making for software access solutions.

Objective
- Identify key emission sources in software-based access solutions.
- Provide actionable guidance and decision-making criteria for design engineers.
- Ensure alignment with emerging environmental regulations.

Focus Areas
- How can software-based access solutions be assessed in a way that is both scientifically grounded and operationally feasible?
- What criteria's and data are needed to support sustainable design decisions?
- How can we bridge the gap between the latest research and practical application?

Expected Outcome
- A software sustainability assessment framework tailored to ASSA ABLOY's needs.
- A digital prototype or concept to support product development teams.
- Contributions to ASSA ABLOY's sustainability roadmap and the broader academic discourse.

Master Thesis Nr. 4

Increased efficiency in hospitals by smart access solutions.

Research Approach

- Review of concept projects and future smart door technologies and access systems.

- Field Study in Hospitals: Assessing Current Door Systems and Processes. To gain practical insights, the project will involve one or more hospitals as case study sites. Through interviews, observations, and process mapping, the current efficiency, security, and convenience of hospital door systems will be documented. Both the flow of patients and assets through the hospital and the ways in which hospital staff interact with and use door and access systems, ensuring a comprehensive evaluation of efficiency improvements.

- Comparative Analysis: Identifying Gaps and Opportunities. This analysis will focus on areas where efficiency, security, and user convenience can be improved, as well as the barriers to adoption and integration of new technologies.

- Scope Narrowing: Selecting key user journeys and use cases for detailed Study. Based on the initial findings, the thesis will narrow its scope to focus on the biggest gaps which can give most impact.

- Evaluation: Concept testing of smart door solutions will be conducted in real hospital environments. Key metrics such as efficiency, security, and user-centric metrics will be assessed and analysed, with anticipated results translated into financial impact.

- Framework integration and Proof-of-Concept: Incorporate measured results into the assessment framework, and apply the framework in a proof-of-concept to simulate and model user journeys and hospital processes. Use the framework to calculate and present operational gains in selected hospitals and across different setups.

Evaluating Multi-Agentic AI Systems in Practical Applications

Multi-agentic AI systems, where several large language model (LLM)-based agents collaborate or coordinate to solve complex tasks, are being increasingly developed and used in modern business solutions. However, systematic methods for evaluating such systems in real-world applications are limited. A recent survey in this field highlights key gaps, noting the need for scalable evaluation solutions that consider cost, safety, and robustness [1].

This project aims to approach the challenge of evaluating multi-agentic systems and address the gaps in the field through the evaluation of a multi-agentic system developed in-house at ASSA ABLOY. The goal of this project is to generate insights on how to evaluate and improve such systems in practical business settings.

Focus Areas

· How can evaluation insights be integrated into the development and improvement of the agent pipeline?
· What constitutes reliable and interpretable evaluations of multi-agentic AI systems in practice?
· How can existing evaluation techniques be used in or adapted to ASSA ABLOY applications?

Master Thesis Nr. 6

AI Scalability & Governance

Will a central Model Context Protocol (MCP) server improve the scalability, governance, and customer value of AI tools at ASSA ABLOY?

This project explores how centralized model context management can enhance the performance and oversight of AI tools across our global operations. You'll work closely with our Software Factory and AI community to investigate technical feasibility, governance implications, and business value.

What You'll Do

- Analyze current AI tool deployment and governance practices.
- Design and evaluate a centralized MCP server concept.
- Collaborate with stakeholders across AI, software, and product teams.
- Deliver both an internal report and an academic thesis.

Leading versus lagging indicators in SaaS

This master thesis is within one ASSA ABLOY Business Area which focuses on sales of various SaaS (Software as a Service) offerings. The goal is to provide guidelines on which leading indicators are suitable for this business, and how these can be used to predict future revenue and churn. (Leading indicators predict future trends, while lagging indicators confirm past trends.)

Possible approach (might change based on interview process and early findings in the master thesis):

- Understand the needs of Product Management and Finance through interviews
- Understand which indicators what has been used historically
- Research which indicators are most suitable for our business, and what benefits these bring to our ability to understand future revenue and churn
- Research if leading indicators provides earlier signalling than lagging indicators, and if so by how much
- Present a recommendation on which indicators to focus on, and considerations for how to implement them as part of continuous business review

Product Usage Metrics

This master thesis is within one ASSA ABLOY Business Area that has different types of products that are on-premises installations, mobile apps and cloud-based services. The goal is to make a recommendation on how to capture and present relevant product usage metrics for product management.

Possible approach (might change based on interview process and early findings in the master thesis):

• Understand the needs of Product Management, through interviews

• Understand what has been tested historically (products and in-house development)

• Market research to understand best practices and what is available

• Test top 3 ideas

• Present a recommendation on how to proceed and why

AI for Digital Trust

Can AI help organizations uncover hidden risks in their digital services?

For this master thesis, we are looking for students to join ASSA ABLOY's innovation journey in digital trust and IoT security. The project explores how artificial intelligence can help organizations improve security by analyzing publicly available data and identifying potential risks. The goal is to build a proof-of-concept tool that shows how AI can detect unusual patterns, gaps, and vulnerabilities - helping businesses strengthen their security posture.

This is a unique opportunity to work on a real-world challenge that combines cybersecurity, AI, and customer value creation. You will explore different AI approaches to transform open data into actionable insights and present findings through a simple dashboard or report that is aimed to bring value to our end customers.

We look forward to
receiving your application!

www.assaabloy.com/career